

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave.St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-028094**Date Inspected:** 03-Aug-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1930**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Job Site**CWI Name:** As noted below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

Quality Assurance Inspector (QA) Douglas Frey was at the American Bridge/Fluor (ABF) job site at Yerba Buena Island in California between the times noted above in order to monitor Quality Control functions and the in process work being performed by ABF personnel. The following items were observed:

**12E-E2.1 (Interior)**

This QA Inspector randomly observed ABF/JV qualified welder Xiao Jian Wan #9677 continuing to perform production welding using the Flux Core Arc Welding (FCAW) process in the 4G overhead position on the A deck joint at 12E-E2.1 on the interior of the OBG. The splice joint was preheated to greater than 200 degrees Fahrenheit using Miller Proheat 35 Induction Heating System with the heater blanket located at the opposite side of the deck prior/during welding. This QA Inspector observed QC Inspector Salvador Merino verify prior to the start of welding operations, that the minimum preheat temperature as per the approved WPS was established; and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with ABF-WPS-D1.5-1-3110-4. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted the work at this location is in progress and appeared to be in general conformance with the contract specifications.

**2W PP13 W2-LSW (Interior)**

This QA Inspector at random intervals, observed ABF/JV qualified welder Roby Smith #4245 performing the Shielded metal Arc Welding (SMAW) process in the 3G vertical position on the Longitudinal Stiffener (LS) of the

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## WELDING INSPECTION REPORT

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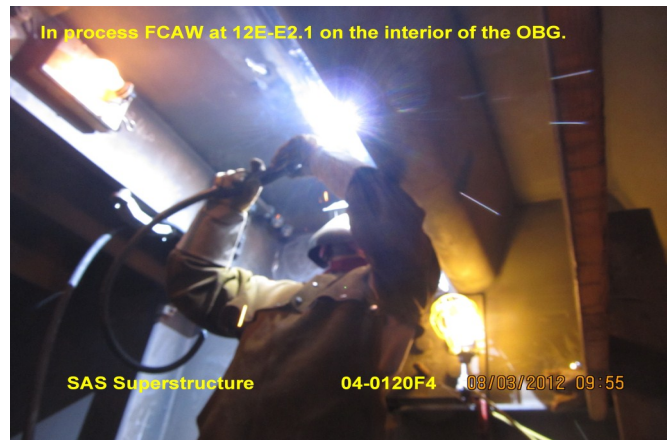
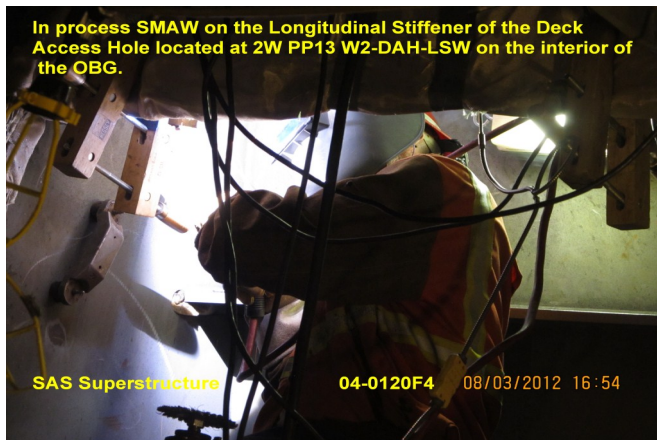
Deck Access Hole (DAH) at 2W PP13 W2-LSW on the interior of the OBG. The splice joint was preheated to greater than 200 degrees Fahrenheit using Miller Proheat 35 Induction Heating System with the heater blanket located at the opposite side of the deck prior/during welding. QC Inspector Steve Jensen was observed measuring the preheat temperature and setting the parameters to ensure compliance with the welding procedure specification (WPS) ABF-WPS-D1.5-1012-3. The welder was observed using a small disc grinder to blend the start/stop edges of the work to provide a smooth transition. The welder was observed utilizing 3.8mm E9018-H4R electrodes drawing amperage of 136. The electrodes were obtained from a baking oven verified by this QA Inspector. On a subsequent observation this QA Inspector monitored the work for quality and noted that it was in progress and appeared to be in general conformance with the contract documents.

### 12E/13E-B1 (Interior)

This QA Inspector randomly observed ABF/JV qualified welder Jim Quan Huang #9340 continuing to perform 3G vertical position production welding using the Shielded Metal Arc Welding (SMAW) process at 12E/13E-B1 on the interior of the OBG. This QA Inspector observed ABF personnel using propylene gas torch to preheat the joint being welded prior welding. This QA Inspector observed QC Inspector Salvador Merino use a infra- red temperature gauge to verify the preheat temperature of more than 150°F. This QA Inspector performed a verification of the welding parameters and observed 132 amperes of the 3.2mm E7018-H4R electrodes. The welding appeared to comply with Welding Procedure Specification (WPS) ABF-WPS-D1.5-1040A-Revision 1. This QA Inspector made subsequent observations throughout the shift to monitor quality and noted the work at this location was completed on this date and appeared to be in general conformance with the contract specifications.

### Summary of Conversations:

No relevant discussions to report.



### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910 , who represents the Office of Structural Materials for your project.

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Inspected By: Frey,Doug

Quality Assurance Inspector

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**Reviewed By:**      Levell,Bill

QA Reviewer